

Work Order ID 150549

Thursday, August 25, 2016 3:03:46 PM

150549

Page 1

Item ID: D5317-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Dowel Pin
Start Date: 9/2/2016 Start Qty: 50.00 ***50*** Cust Item ID:
Required Date: 9/2/2016 Req'd Qty: 50.00 ***50*** Customer:
Reference:

Approvals: Process Plan: dem Date: 16/08/25 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5317	A								
100		0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>33481</u>								
	Possible supplier: MCMaster Carr								
	Supplier P/N: 97395A451								
	C OF C is required.								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.00							
Packaging									

50 AUG 30 2016 DAS 13 9-89
50x SP/6 9-6

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 150549

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Thursday, August 25, 2016 3:03:46 PM

Item ID: D5317-1 Accept ***N900040100*** Setup Start ***NS1***
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 Item Name: Dowel Pin
 Start Date: 9/2/2016 Start Qty: 50.00 ***50*** Cust Item ID:
 Required Date: 9/2/2016 Req'd Qty: 50.00 ***50*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									
									DAS 38 9-89 SEP 07 2016
130	Identify as per dwg & Stock Location: <u>WAC001</u>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
									DAS 6 9-89 SEP 07 2016
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									
									DAS 21 9-89 SEP 08 2016
									DAS 21 9-89 SEP 07 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 1

Work Order ID: 150549

150549

Parent Item: D5317-1

D5317-1

Parent Item Name: Dowel Pin

Start Date: 9/2/2016

Required Date: 9/2/2016

Start Qty: 50.00

Required Qty: 50.00

Comments: IIN REV:A 16.02.10 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
97395A451		Purchased	No				Each	0.0000		50			
97395A451									**				
Dowel Pin													

50x 9/2/16-9-6

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

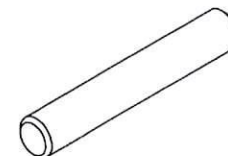


QA Closed: _____ Date: _____

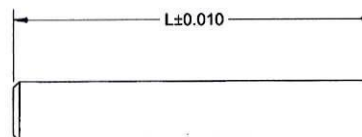
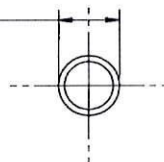
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

SPECIFICATION CONTROL DRAWING



$\phi D^{+0.0002}_{-0.0000}$



SHOW COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 150549

ITEM	DART PART NUMBER	DESCRIPTION	POSSIBLE VENDOR	VENDOR PART NUMBER	MATERIAL	LENGTH (L) (IN)	DIAMETER (D) (IN)	WEIGHT (LB)
1	D5317-1	DOWEL PIN	MCMaster CARR	97395A451	316 SS	0.750	0.125	0.003

D5317-X DOWEL PIN

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: PER QSI 044 6.7
- 7) WEIGHT: SEE TABLE

RELEASED
2016-04-18
ECN/6557

APPROVED

A	NEW ISSUE	AK	15.10.05
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AK	DRAWING NO.	REV. A
CHECKED	CC	D5317	SHEET 1 OF 1
MFG. APPR.	JLM	TITLE	SCALE
APPROVED	HS	DOWEL PIN	NTS
DE APPR.	DS	COPYRIGHT © 2015 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	15.10.05		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO33481**

Purchase Order Date 8/30/2016

PO Print Date 8/30/2016

Page Number 2 of 6

Order From :
MCMASTER-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 330 995 5500

Ship To Contact
Ship To Phone
Ship Via: Purolator ground ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 10
Currency USD
FOB FCA - (Free Carrier)

3	97395A451	Dowel Pin	9/2/2016 FN	50.00	\$0.81	\$40.60
			Yes	Each		
			9/2/2016			

AS PER DWG D5317 REV. A
B150549

Sp 16-9-6
Line Total:

\$40.60

4	6605K56	HOOK AND LOOP TIE	9/2/2016	10.00	\$2.78	\$27.78
			Yes	Each		
			9/2/2016			

AS PER DWG D3551 REV. A
B150592

Line Total: \$27.78

5	91525A120	washer	9/2/2016	50.00	\$0.25	\$12.52
			Yes	Each		
			9/2/2016			

AS PER DWG D3456 REV. A
B150652

Line Total: \$12.52

Note:

8/30/2016



200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO33481

Order Placed By
Chantal Lavoie

McMaster-Carr Number
7924498-01

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08/30/2016

Line	Product	Ordered	Shipped
2	63215K34 Stainless Steel Ball Joint Swivel Bearing, PTFE Lined, 3/8" ID, 13/16" OD, 13/32" Ball Thick	10 Each	10
3	97395A451 Corrosion Resistant Dowel Pin, Type 316 Stainless Steel, 1/8" Diameter, 3/4" Length, Packs of 10	5 Packs	5
4	6605K56 Hook and Loop Cable Ties, 24" Overall LG. , Meets UL 94V2, Packs of 5	2 Packs	2
5	91525A120 316 Stainless Steel Washer, Oversized, 1/4" Screw Size, 0.281" ID, 1" OD, Packs of 25	2 Packs	2
6	6718K52 303 Stainless Steel Indust-Shape Air Hose Coupling, Plug, 1/4 Coupling Size, 1/4 NPTF Female End	4 Each	4
7	92311A639 18-8 Stainless Steel Cup Point Set Screw, 3/8"-24 Thread, 1" Long, Packs of 10	5 Packs	5
8	95606A170 Nylon Plastic Washer, for 7/16" Screw Size, 0.5" ID, 0.688" OD, Off-White, Packs of 100	1 Pack	1
9	7467A26 3M Adhesive Cartridge, DP460 High Strength Epoxy, 1.25 Ounces	12 Each	12
10	9438K1 Food-Grade Antiseize Lubricant, 1 lbs. Brush-Top Can	1 Each	1
11	6718K88 303 Stainless Steel Indust-Shape Air Hose Coupling, Size 3/8, Sleeve-Lock Socket, 3/8" ID	2 Each	2
12	91251A440 Black-Oxide Alloy Steel Socket Head Cap Screw, 1/4"-28 Thread, 3/4" Length, Packs of 50	1 Pack	1
13	47505A746 Nylon Mesh Sanding Belt for Cleaning, and Polishing, 6" Wide, 48" Long, Medium Grade	3 Each	3
14	4714A732 High Performance Multipurpose Sanding Belt, 80 Grit, 6" Wide, 48" Long	6 Each	6
15	4714A732 High Performance Multipurpose Sanding Belt, 120 Grit, 6" Wide, 48" Long	6 Each	6

Expected to ship

1	3543T77 High-Strength 301 Stainless Steel Sheet, with Certificate, Full Hard, 0.029" Thick, 12" X 36"	2 Each	2 to ship by 09/13
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Notes about your shipment

The U.S. Department of Transportation regulates the shipping of line 9. By purchasing from McMaster-Carr Supply Company, you agree not to transport or permit others to transport purchased items except in accordance with U.S. law and any other applicable laws.

McMaster-Carr Supply Company
200 Aurora Industrial Pkwy
Aurora, OH 44202-8087 USA
Phone: 330-995-5500 Fax: 330-995-9600
E-Mail: cle.sales@mcmaster.com
Employer Identification Number (EIN): 36-1458720

Invoice: 77017772
Purchase Order: PO33481
Release:
McMaster-Carr Number: 7924498-01

ORIGINAL COMMERCIAL
INVOICE
CERTIFICATE OF ORIGIN

Ultimate Destination:
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Shipped: 30-Aug-2016

FOB: ORIGIN

Shipper's Export Declaration (SED):
NO EEI 30.36

Intermediate Consignee:

Bill To:
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Tax Number:

Forwarding Agent:

Billing
Attention:
Shipping
Attention:

Contact:

Line	Description	Qty & Unit	Unit Price	Extension
2	63215K34 Stainless Steel Ball Joint Swivel Bearing, PTFE Lined, 3/8" ID, 13/16" OD, 13/32" Ball Thick Country of Origin: Peoples Republic of China Schedule B #: 848330 ECCN #: EAR99 NLR	10 EA	\$17.24	\$172.40
3	97395A451 Corrosion Resistant Dowel Pin, Type 316 Stainless Steel, 1/8" Diameter, 3/4" Length, Packs of 10 Country of Origin: United States Schedule B #: 731829 ECCN #: EAR99 NLR	5 PK	\$8.12	\$40.60
4	6605K56 Hook and Loop Cable Ties, 24" Overall LG., Meets UL 94V2, Packs of 5 Country of Origin: United States Schedule B #: 392690 ECCN #: EAR99 NLR	2 PK	\$13.90	\$27.80
5	91525A120 316 Stainless Steel Washer, Oversized, 1/4" Screw Size, 0.281" ID, 1" OD, Packs of 25 Country of Origin: Taiwan Schedule B #: 731822 ECCN #: EAR99 NLR	2 PK	\$6.26	\$12.52

Your order is subject only to our terms and conditions, available at www.mcmaster.com or from our Sales Department.

These commodities, technology, or software were exported from the United States in accordance with Export Administration regulations. Diversion contrary to US law is prohibited.

Shipping Weight (in kgs): 6

Number of Packages: 1

Invoice Amounts:

Merchandise Amount: \$1,042.51
Canadian GST/HST: \$137.77
Shipping Charges: \$17.33
Total (In USD): \$1,197.61

Package Dimensions:

44 X 44 X 32 CM = .063 CUBIC M

Payment Terms: 2% discount on merchandise only if paid within 10 days, net 30 days

Remit payment to:

(by wire transfer)

(by mail)

McMaster-Carr Supply Company
PO Box 7690
Chicago, IL 60680-7690 USA

Bank of America

222 Broadway
New York, NY 10038
Account 86666-02021
SWIFT BOFAUS3N

Authorized Signature:

Date:

30-Aug-2016

Name: Sarah Weinberg

Title: Operations Mgr.

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